Varun Jose Madanu

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EDUCATION

University at Albany, SUNY — New York, USA
Master of Science, Computer Science — 2023-2025
Coursework: Algorithms and Data Structures, Software Engineering, Machine Learning, Database Systems

KPRIT Institute of Technology and Science — Hyderabad, India
Bachelors in Computer Science and Engineering — 2019-2023
Coursework: OOPS using C++, Operating Systems, Network Security, Distributed Systems, Computer Vision.

PROFESSIONAL EXPERIENCE

NYS Department of Transportation — 06/2024 - Present
Full Stack Developer Intern — Albany, NY, USA
- Enhanced and optimized skills in Full Stack Development, Data Management, focusing on both frontend and backend technologies. Applied SQL for precise database querying and optimized query development, integrating skills learned from academic coursework.
- Built a web application using React JS (Frontend) and Spring Boot (Backend) to visualize complex data, enhancing understanding and supporting decision-making, by reducing manual tasks by 30% and increasing efficiency.
- In addition, utilized Tableau for effective report visualization, transforming complex data sets into clear and interactive visual representations to enhance decision-making.

Sodexo — 09/2023 - 06/2024
ITS Student Assistant — Albany, NY, USA
- I supported day-to-day technical operations by assisting with hardware and software troubleshooting, setting up and maintaining workstations, and resolving user issues to ensure seamless functionality.
- Additionally, I contributed to system updates, provided technical support for team members, and gained hands-on experience in IT processes within a professional environment.

Cognier Insights — 09/2022 - 06/2023
Software Engineer Intern — Hyderabad, India
- Received an extensive 4-month training program encompassing React.js, Github, Agile foundations, C++, C#(.NET), and MS SQL.
- Developed a retail application that allowed consumers to access real-time stock availability and product placements within aisles, resulting in a 30% increase in customer satisfaction through enhanced shopping experiences and a 25% reduction in checkout processing time.
- Optimized application performance by systematically identifying and addressing bottlenecks, eliminated dependency on cloud gateways by establishing direct connections between the user interface and server using REST API protocols, leading to improved system reliability and a 20% reduction in latency.

PROJECT EXPERIENCE

ExpenseNest | React.jS, AWS EC2, Docker, SpringBoot, Postman, Node.js
- Developed a robust expense tracker application using React.js for the frontend and Spring Boot for the backend, implementing JWT authentication, deploying on AWS EC2, and utilizing Docker for containerization, enabling users to efficiently manage and monitor their personal finances equipped with 7 different features.

Prediction Model for Obstructive Sleep Apnea from Facial Depth Maps | CNN, VGG - 19, Python, SGD, Tensorflow
- Developed a highly accurate prediction model for Obstructive Sleep Apnea using the VGG-19 deep learning neural network, achieving 98.6% accuracy by collecting and preprocessing 3D facial scan images for model training and inference.

Gentle Shop | React.js, Bootstrap, Tailwind CSS, Node.js, Express.js, MongoDB, Git, Postman
- Designed and developed a scalable e-commerce application where users can shop products by category, add to cart, add to wish-list and check out features, featuring a React front-end and an Express/MongoDB back-end, implementing JWT authentication for secure user sessions, achieving a 30% improvement in user session efficiency, showcasing expertise in full-stack development and cloud deployment.

TECHNICAL SKILLS

Programming Languages: JavaScript, Python, SQL, C, C++, HTML, CSS, XML, Java
Web Development & DB : Bootstrap, React.js, Node.js, MySQL, MS Access, Express, Spring Boot, MongoDB, PostgreSQL
Technologies & Tools: Tableau, AWS, Docker, Git, GitHub, Jira, Google Cloud Platform, Selenium IDE
Python Libraries: NumPy, Pandas, Scikit, Keras, Matplotlib, PyTorch, Tensorflow, Flask, SciPy

ACHIEVEMENTS:

- Achieved best project award in the college final project for "Prediction Model for Obstructive Sleep Apnea" project.
- Received an award for "Gentle Shop" project in the college hackathon for high performance web application.